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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,912	12/28/2000	Malcolm M Smith	062891.0443	9607

7590 11/19/2004  
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EXAMINER

JAGANNATHAN, MELANIE

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/752,912

Applicant(s)

MALCOLM M. SMITH

Examiner

Melanie Jagannathan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/20/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 8, 14, 21, 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The amended limitation of requesting subscription information from the home agent in advance of mobile unit roaming into foreign network associated with a foreign agent is not disclosed in specification in a manner such that one skilled in the art could arrive at claimed limitation without undue experimentation.

Specification of instant application discloses base station of foreign network using device identifier of mobile unit, acquired by detection of mobile unit when it moves into or near service area of foreign network, to determine IP address of mobile unit and IP address of home agent in order for base station to initiate registration of foreign agent to receive redirect packets from home agent. This is done by base station communicating IP addresses of home agent and mobile unit to foreign agent which subsequently uses this information to request establishment of tunnel. Home agent then registers foreign agent. Specification of instant application then immediately discloses that because foreign agents may register with home agent at any time, home agent and

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foreign agent may establish tunnel in advance of mobile unit roaming into foreign network thus supporting a virtually seamless handoff of mobile unit into foreign network. See pages 9-11 of specification.

In the method disclosed in above identified independent claims, base station receives device identifier of mobile unit and, as disclosed in specification, this is done by base station detecting presence of mobile unit when it “moves into or near” service area of foreign network. Examiner respectfully points out this does not clearly disclose mobile unit having not roamed into foreign network as mobile unit could be near service area of base station so as to be detected with its signal strength but can still have entered foreign network populated with several base stations. Examiner believes specification discloses the sentence “...mobile unit moves into or near service area of foreign network” but does not explain such that one skilled in the art could arrive at claimed limitation without undue experimentation what “near” could mean and the relation of this sentence to subsequent steps of establishing tunnel. Applicant has argued that reference Frid et al. does not disclose amended limitation of requesting subscription information from the home agent in advance of mobile unit roaming into foreign network associated with a foreign agent because reference discloses mobile station has realized it has traveled into new geographic area (column 4, ll. 32-36). Examiner contends Frid et al. teaches method of said claims for reasons above as well as Frid discloses base station receiving mobile identification number, identifying home agent and IP address of mobile unit in order to set up tunnel between home and foreign agents before a data communication session for mobile unit has been started as disclosed by specification of instant application.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Frid et al. US 6,137,791.

Regarding claims 1-2, 7-9, 14-15, 20-22, 26-27, 31-32, 37-39, 44-45, 50-52, 56-57, the claimed receiving of device identifier from a mobile unit is disclosed by mobile station (Figure 1, element 20) transmitting mobile identification number to base station (element 30). The claimed determining a home agent for mobile unit based on device identifier is disclosed by base station forwarding MIN to visited mobile switching center (element 4) serving that area and using MIN identifies home agent and HLR (element 50) associated with mobile station (element 20) at home network. See columns 1-4 and column 7, lines 40-45. The claimed requesting subscription information from home agent, in advance of mobile roaming, wherein subscription information comprises an IP address for mobile unit is disclosed by VMSC transmitting location update signal to HLR where HLR has stored data correlating the received MIN with a corresponding IP address assigned to mobile station, HLR providing subscriber data back to VMSC. See column 6, lines 53-62, column 7, and lines 34-45. The claimed initiating registration of foreign agent with home agent, wherein the registration permits foreign agent to receive redirect packets from

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home agent is disclosed by GPMSC (element 70) establishing IP tunnel (element 90) with VPMSC. See column 4, lines 14-67, column 5, lines 1-37, column 9, and lines 22-37.

Regarding claims 3, 16, 33, 46, the claimed IP address of mobile unit specifying network identifier identical to that specified by an IP address of home agent is disclosed by within PMM network, mobile unit assigned PMM network dependent IP address. See column 5, lines 3-4.

Regarding claims 4, 10, 17, 23, 28, 34, 40, 47, 53, 58, the claimed registration comprising a registration request to home agent including IP address of mobile unit and IP address of foreign agent is disclosed by GPMSC establishing tunnel through use of HLR (element 50) sending it routing instructions including IP address representing VPMSC and HLR retains information about current location of mobile station and correlating of MIN to mobile IP address.

Regarding claims 5, 11-12, 18, 24, 29, 35, 41-42, 48, 54, 59, the claimed redirect packets addressed to IP address of foreign agent and each redirect packet comprises as a payload a data packet addressed to IP address of mobile unit is disclosed by GPMSC encapsulating IP packet data addressed to mobile station within another IP packet addressed to VPMSC. See column 5, lines 24-27.

Regarding claims 6, 13, 19, 25, 30, 36, 43, 49, 55, 60, the claimed receiving redirect packets, extracting data packets from redirect packets and communicating data packets to mobile unit is disclosed by VPMSC extracting encapsulated original IP packet and identifies mobile station and forwarding extracted IP packet data to VMSC and delivered to mobile station. See column 5, lines 28-37.

***Response to Arguments***

5. Applicant's arguments filed 10/20/2004 and have been fully considered but they are not persuasive. Applicant argues reference Frid et al. does not disclose limitation of requesting subscription information from the home agent in advance of mobile unit roaming into foreign network associated with a foreign agent because reference discloses mobile station has realized it has traveled into new geographic area (column 4, ll. 32-36). Examiner contends Frid et al. teaches method of said claims as it discloses base station receiving mobile identification number, identifying home agent and IP address of mobile unit in order to set up tunnel between home and foreign agents before a data communication session for mobile unit has been started just as disclosed by specification of instant application. Applicant argues Frid states when a mobile station travels into a particular geographic area...the mobile station realizes it has traveled into new geographic area covered by a new switching center and performs registration. Examiner respectfully directs Applicant to U.S.C. 112, 1<sup>st</sup> paragraph rejection above where limitation of requesting subscription information from the home agent in advance of mobile unit roaming into foreign network is not fully disclosed as specification teaches base station detects mobile station when has moved into or near service area which can be determined that mobile station is near coverage area of base station so as to be detected but not necessarily not in the foreign network. Examiner respectfully maintains rejection with use of reference Frid et al.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 571-272-3163. The examiner can normally be reached Monday-Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3163.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ

  
**FRANK DUONG**  
**PRIMARY EXAMINER**

Melanie Jagannathan  
Patent Examiner  
AU 2666